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Our Case No. 5050/584-1

MAY 14 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

TECHNOLOGY CENTER 3700

In re Application of:)	
)	
John A. Hossack et al.)	
)	Examiner: M. Choobin
Serial No. 09/369,510)	
)	Group Art Unit No. 2621
Filing Date: August 6, 1999)	
)	
For Medical Diagnostic Ultrasonic)	
Imaging Method and System for)	
Displaying Multi-Frame Images)	

AGENDA FOR TELEPHONE INTERVIEW

A. Review the preferred embodiment

1. Multiple frames are acquired, and each frame is identified with a particular phase of a cycle (e.g., the cardiac cycle). For example, each frame may be labeled with one of ten separate phases, and ten frames may be collected for each transducer position (See p. 2, l. 26 - p. 3, l. 6).
2. Multiple images are generated from the frames of (1), and each image uses data from multiple frames, all of about the same phase. Examples are images constructed from a 3-D data set (p. 3, l. 25 - p. 4, l. 3 and p. 6, ll. 2-4) and extended field of view images (p. 6, ll. 10-16 and 28-30).

B. Review Gandini U.S. Pat. 5,645,066

1. The frames used to create 3-D images are not selected based on cycle (e.g. cardiac) phase (See col. 4, ll. 6-10 and col. 6, ll. 22-49, which calls for no selection of frames by cycle phase).

2. The [**Curve**] loop description at col. 4, ll. [58] relates to 2-D image sequences which show tissue suction, not to 3-D images or to extended field of view images.

C. Compare preferred embodiment with Gandini

1. Figure A shows which frames are used to form 3-D data set or extended field of view image in a preferred embodiment.
2. Figure B shows which frames are used to form 3-D data set in Gandini.
3. Gandini does not recognize the problem solved by this invention.

D. Review Claims 24 and 32

1. Claim 24(b) and (c)
2. Claim 32(b) and (c)
3. Proposed amendments
 32. (Amended) An ultrasonic imaging system comprising:
 - (a) means for acquiring image [date] data for a plurality of frames, each frame identified with a respective phase of a physiological cycle;
 - (b) means for generating a first image associated with a first phase of the physiological cycle from image data from [at least two] multiple selected ones of the frames of (a) associated with [a] the first phase of the physiological cycle;
 - (c) means for generating a second image associated with a second phase of the physiological cycle from image data from [at least two] multiple selected ones of the frames of (a) associated with [a] the second phase of the physiological cycle; and

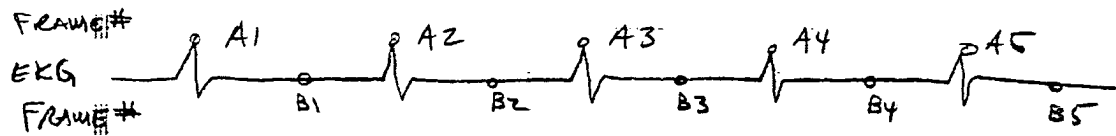
(d) means for displaying at least the first and second images in sequence to a user.

E. Review the rejection of claims 29 and 36

1. The specification provides support for these claims at page 6, line 13 and in Figure 6.

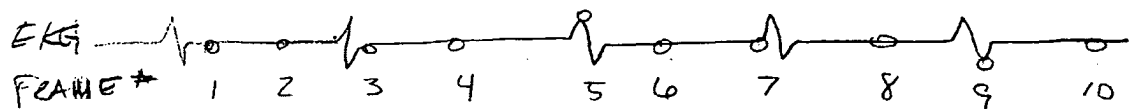
Fig A

A1-A5 ARE ALL 0° PHASE, AND IMAGE A IS
CONSTRUCTED FROM SELECTED ONES OF A1-A5.



B1-B5 ARE ALL 180° PHASE, AND IMAGE B IS
CONSTRUCTED FROM SELECTED ONES OF B1-B5.

Fig B (GANDINI)



GANDINI 3-D IMAGES ARE CREATED FROM SOME
OR ALL OF FRAMES 1-10, WITHOUT SORTING THE
FRAMES BY PHASE ANGLE.

05-10-01

3737

TRANSMITTAL LETTER		Case No. 5050/584	
Serial No. 09/369,510	Filing Date August 6, 1999	Examiner M. Choobin	Group Art Unit 3737
Inventor(s) HOSSACK ET AL.			
Title of Invention MEDICAL DIAGNOSTIC ULTRASONIC IMAGING METHOD AND SYSTEM FOR DISPLAYING MULTI-PHASE, MULTI-FRAME IMAGES			

TO THE COMMISSIONER FOR PATENTS

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Transmitted herewith is Amendment and Record of Interview.

Small entity status of this application under 37 CFR § 1.27 has been established by verified statement previously submitted.

Technology Center 2600

- ☐ A verified statement to establish small entity status under 37 CFR §§ 1.9 and 1.27 is enclosed.
- ☐ Petition for a _____ month extension of time.
- ☒ No additional fee is required.
- ☐ The fee has been calculated as shown below:

	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra
Total		Minus		0
Indep.		Minus		0
First Presentation of Multiple Dep. Claim				

Small Entity

Rate	Add'l Fee
x \$9=	
x 40=	
+\$135=	
Total add'l fee	\$

or

Rate	Add'l Fee
x \$18=	
x \$80=	
+\$270=	
Total add'l fee	\$

- ☐ Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of \$_____. A duplicate copy of this sheet is enclosed.
- ☐ A check in the amount of \$_____ to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this communication or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.
- ☒ I hereby petition under 37 CFR § 1.136(a) for any extension of time required to ensure that this paper is timely filed. Please charge any associated fees which have not otherwise been paid to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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Express Mail mailing label number EL 756225508 USDate of Deposit: May 9, 2001Date: May 9, 2001 Signature: *William A. Webb*